UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 W. 15th STREET, SUITE 3200
HELENA, MONTANA 59626

Ref: 8MO

November 16, 2010

Ms. Laurie Shannon, Planning Team Leader
U.S. Fish & Wildlife Service, Division of Refuge Planning
P.O. Box 25486, Denver Federal Center
Denver, Colorado 80225

Re: CEQ 20100374; Charles M. Russell National Wildlife Refuge and UL Bend National Wildlife Refuge, Montana, Draft Comprehensive Conservation Plan and EIS

Dear Ms. Shannon:

The Environmental Protection Agency (EPA) Region 8 Montana Office has reviewed the Draft Comprehensive Conservation Plan (Plan) and Environmental Impact Statement (DEIS) for the Charles M. Russell National Wildlife Refuge and UL Bend National Wildlife Refuge. We are providing comments in accordance with EPA review responsibilities under Section 102(2)(c) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major Federal agency action. EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document.

The DEIS and Plan prepared by the U.S. Fish and Wildlife Service (Service) analyzes four alternatives for management and use of the refuge complex: Alternative A – No Action; Alternative B-Wildlife Population Emphasis; Alternative C-Public Use and Economic Use Emphasis; and Alternative D-Ecological Processes Emphasis. Alternative D is the Service's proposed action wherein natural ecological processes and management activities (e.g., prescribed fire, grazing and hunting) would be used to restore and maintain the biological diversity, integrity and environmental health of the refuge. Once natural processes are restored management would then evolve toward a more passive approach allowing the natural processes such as fire, grazing and flooding to occur with less human assistance and funding.

EPA supports the refuge vision and goals identified by the Service in the draft Plan and DEIS, with our particular support for maintaining and restoring the biological integrity, biological diversity, and environmental health of the refuge's wildlife and habitat resources. We are also generally supportive of the many wildlife and riparian and wetland habitat objectives identified in the draft Plan and DEIS. These objectives appear consistent with the overall refuge vision and goals.

The Service's proposed action, Alternative D (Ecological Processes Emphasis), has many valuable attributes, however, there are certain aspects of the proposed action and draft Plan and DEIS that create some concerns with EPA. These concerns involve four issues:

1) Adverse impacts from open roads and motorized uses on wildlife habitat, connectivity and security, and other resources, and the minimal amount of refuge road closures and/or removals included in the proposed action.

2) Inadequate discussion of water quality impairments of surface waters within the refuge, and clearer demonstration that the Service's preferred alternative will include adequate actions to address water quality impairments that may be related to conditions on refuge land in order for the Plan to be consistent with the Montana Dept. of Environmental Quality's (MDEQ's) preparation of Total Maximum Daily Loads (TMDLs) to improve water quality and restore full support of beneficial uses for surface waters within the refuge.

3) Unclear disclosure that prescribed fire will be carried out in conformance with a certified Smoke Management Program (e.g., Montana/Idaho State Airshed Group), since the UL Bend Wilderness Area is designated as a Class I air quality area.

4) The Alternative D proposal to eliminate three proposed wilderness units for a reduction of 26,744 acres in the East Beauchamp Creek, West Beauchamp Creek, and East Hell Creek units, and reduction of overall wilderness in the refuge complex by 8,185 acres does not appear consistent with the primary purpose of the refuge to conserve and protect wildlife.

We recommend that the Service consider modifications to the proposed action, draft Plan, and EIS to address these concerns in order to more fully achieve the primary refuge purpose of maintaining and restoring the biological integrity, biological diversity, and environmental health of the refuge's wildlife and habitat resources. It would appear to us that Alternative B, Wildlife Population Emphasis, would better meet the primary refuge purposes, although modifications to Alternative B may also be need to be considered to better balance public use with wildlife needs.

We are enclosing our more detailed comments that provide additional information and discussion in regard to our review of the draft Plan and DEIS and EPA's recommendations. Our more detailed comments address issues regarding: Roads and Motorized Uses; Water Resources-Water Quality; Air Quality and Prescribed Fire; Proposed Wilderness; Invasive Plants/Noxious Weeds; Livestock Grazing; Climate Change; Monitoring and Adaptive Management; Tribal Coordination; and Environmental Justice. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Charles M. Russell National Wildlife Refuge and UL Bend National Wildlife Refuge, Draft Comprehensive Conservation Plan and DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). A summary of EPA's DEIS rating criteria is attached.

The EPA appreciates the effort that went into the analysis and preparation of the draft Comprehensive Conservation Plan and DEIS, and the opportunity for review and comment. If we may provide further explanation of our comments and concerns please contact Mr. Stephen Potts of my staff in Missoula at 406-329-3313 or in Helena at (406) 457-5022. Thank you for your consideration.

Sincerely,

Julie A. DalSoglio
Acting Director
Montana Office

Enclosures

cc: Larry Svoboda/Connie Collins, EPA, 8EPR-N, Denver
Robert Ray/Mark Kelley, MDEQ, Helena

EPA Comments on Charles M. Russell and UL Bend National Wildlife Refuge Draft Comprehensive Conservation Plan and Environmental Impact Statement

Brief Project Overview:

The U.S. Fish and Wildlife Service (Service) has developed a draft Comprehensive Conservation Plan (Plan) and Environmental Impact Statement (DEIS) for management of two refuges in Montana, Charles M. Russell National Wildlife Refuge and UL Bend National Wildlife Refuge. These refuges encompass nearly 1.1 million acres including Fort Peck Reservoir and comprise one of the largest refuge complexes in the lower 48 States. Located in north-central Montana they extend west about 125 air miles along the Missouri River from Fort Peck Dam on the east to the Upper Missouri River Breaks National Monument on the western end. The UL Bend National Wildlife Refuge lies within the boundary of Charles M. Russell National Wildlife Refuge; and these two Refuge System units are managed cohesively as one refuge for wildlife conservation above all else. UL Bend National Wildlife Refuge contains the 20,819-acre UL Bend Wilderness, and Charles M. Russell National Wildlife Refuge has 15 proposed wilderness units totaling 155,288 acres. A portion of the Missouri River along the refuge's western boundary is part of Upper Missouri National Wild and Scenic River. Refuges cover portions of six counties: Fergus, Petroleum, Garfield, McCone, Valley, and Phillips Counties, Montana.

The Plan identifies the purpose and need for a management plan, outlines the legal foundation, and describes and evaluates four alternative plans for managing wildlife, habitat, and wildlife-dependent public use. This process has involved the development of a vision, goals, objectives, and strategies that meet the legal directives of the Service and has considered the input of interested groups and the public.

Under the No-Action Alternative (A), few changes would occur in managing existing wildlife populations and habitat. The habitat regime would be maintained mostly through a fire suppression program with little use of prescribed fire. There would be continued emphasis on big game management, annual livestock grazing, fencing, invasive species control, and water development. Habitats would continue to be managed in 65 units, and residual cover would be measured. Wildlife-dependent public use would occur at current levels, which includes hunting, fishing, and limited interpretation and environmental education programs. About 670 miles of road would remain open. The Service would continue to manage the 20,819-acre UL Bend Wilderness and 155,288 acres of proposed wilderness in the Charles M. Russell National Wildlife Refuge.

Under Alternative B's wildlife population emphasis, the Service would manage the landscape in cooperation with partners to emphasize abundant wildlife populations using both (1) natural ecological processes such as fire and wildlife ungulate herbivory (grazing) and prescriptions on livestock grazing and (2) responsible synthetic methods such as farming practices or tree planting. Wildlife-dependent public use would be encouraged, but economic uses would be limited when they compete for habitat resources. About 106 miles of road would be closed. Acreage of proposed wilderness would be extended by 25,037 acres in six existing units.

Under Alternative C's public use and economic use emphasis, the Service would manage the landscape in cooperation with partners to emphasize and promote maximum levels of compatible, wildlife-dependent public use and economic use. Wildlife populations and habitats would be protected with various management tools that would minimize damaging effects to wildlife and habitats while enhancing and diversifying public and economic opportunities. No roads would be closed, and would consider establishing new roads. Four proposed wilderness units of 35,881 acres would be proposed for elimination.

Under the Service's proposed action—Alternative D's ecological processes emphasis—the Service would work with partners to use natural, dynamic, ecological processes along with active management in a balanced, responsible manner to restore and maintain biological diversity, biological integrity, and environmental health. Once natural processes were restored, more passive approaches would be favored. The Service would provide for quality wildlife-dependent public use and experiences and would limit economic uses when they were injurious to ecological processes. About 23 miles of road would be closed. Six proposed wilderness units would be expanded by 18,559 acres, however, three wilderness units amounting to 26,744 acres would be eliminated, amounting to an overall reduction in proposed wilderness of 8,185 acres.

Comments:

Issues/Topics:

- Roads and Motorized Uses
- Water Resources-Water Quality
- Air Quality and Prescribed Fire
- Proposed Wilderness
- Invasive Plants/Noxious Weeds
- Livestock Grazing
- Climate Change
- Monitoring and Adaptive Management
- Tribal Coordination
- Environmental Justice

<u>Roads and Motorized Uses</u>

1. Public recreational access and demand has increased significantly in recent years due to motorized vehicles such as trail bikes, off-road vehicles (ORVs), all terrain vehicles (ATVs), and snowmobiles that can access areas much further into isolated public lands than they could historically. We are concerned that demand for recreation opportunities on the refuge may be exceeding the capability of the land and resources to provide recreation in a manner that is consistent with the primary refuge purpose of maintaining and restoring the biological integrity, biological diversity, and environmental health of the refuge's wildlife and habitat resources.

   The DEIS states that there are 670 miles of roads on the refuge (page 34). Roads and motorized uses displace wildlife and push wildlife onto smaller and smaller patches of habitat; degrade and fragment wildlife habitat; change wildlife behavior; increase stress;

reduce reproductive success; and reduce wildlife security and increase mortality. Fragmentation of wildlife habitat and reduced wildlife security from roads and avoidance of roads by wildlife is more pronounced in open grassland/sagebrush landscapes like those within the refuge. Roads and motorized uses also cause soil erosion and adverse effects to water quality, riparian and wetland habitat, and fisheries; and are often a major vector promoting spread of weeds and invasive plants. Roads/trails often tend to become wider and rutted with heavy motorized use, creating a greater need for monitoring of road/trail conditions, and for road and trail maintenance for repair and erosion control.

It appears to us that a Comprehensive Conservation Plan for a national wildlife refuge that is one of the largest refuge complexes in the lower 48 States should promote more of a minimal road network to reduce impacts to wildlife and their habitat; reduce wildlife fragmentation and displacement; increase security of diverse populations of wildlife species; and better contribute to recovery of listed species. The proposal to close only 23 miles of the 670 miles of existing road within the refuge does not appear to be consistent with the primary refuge purpose of maintaining and restoring the biological integrity, biological diversity, and environmental health of the refuge's wildlife and habitat resources.

While we recognize the need for public use and access for management of the refuge, it appears that the wildlife conservation purposes of the refuge would be better served with a more minimal road system that is achieved with additional road closures and road removals. The challenge is in providing adequate access for public recreation and land management while protecting and restoring wildlife. We recommend that the Service consider inclusion of additional road closures and road removal in its preferred alternative in the final Plan and FEIS.

2. We also note that it is difficult to effectively restrict motorized access to public lands and protect them with simple road closures (i.e., gated closures). Gated road closures, year long, or during the hunting season, are less effective at providing wildlife security than in the past due to the advent of widespread use of ATVs and ORVs. Road obliteration with restoration of drainage ways is a preferred method of road closure.

3. It is also not clear to us if there may be additional user created roads/trails or motorized routes within the refugee (i.e., in addition to the 670 miles of roads identified in the draft Plan and DEIS). Are there any additional user created motorized roads, routes or trails within the refuge that are not included within the 670 miles of road stated in the Plan?

   If so, we recommend closing and reclaiming user created motorized routes, especially in sensitive habitats such as wetlands and other environmentally sensitive areas. Natural landscapes should be restored and revegetated, especially in drainage ways, and with closures policed and enforced. An effective policing and enforcement program is needed to assure that motorized access does not occur in restricted areas. We recommend that the final Plan and FEIS describe the Service's inspection and enforcement program that will be used to assure that ATVs and OHVs will not violate motorized vehicle access

limitations. It is also important that enforcement of off-road restrictions be funded and prioritized.

In addition, restrictions on motorized uses should be clearly marked and designated as to level of use to make areas of allowable motor vehicle use and prohibitions clear. The majority of off-road and all terrain vehicle (ORV/ATV) users appear to be committed to the protection of natural resources, are interested in the sustainability of the environment on public lands, and would not intentionally cause harm if the rules on motorized uses are clear and understandable, and identified on maps, signs, etc.

We note that Executive Order 11644, "Use of Off-Road Vehicles on Public Lands," requires agencies to ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.

Water Resources-Water Quality

4. There are several water quality impaired surface waters on the refuge listed under Section 303(d) of the Clean Water Act by the Montana Dept. of Environmental Quality (MDEQ). Segments of the Missouri River, Musselshell River, Rock Creek, Nelson Creek and Fort Peck Reservoir within the refuge are listed as water quality impaired by MDEQ. The draft Plan and DEIS does not fully or clearly disclose information on all the water quality impaired waters within the refuge (pages 175-176, 266-267). We are providing information on 303(d) listed waters within the refuge from the MDEQ's Clean Water Act website (http://cwaic.mt.gov/query.aspx) that appears to be missing from the draft Plan and DEIS (see such information in the paragraphs below).

   The Missouri River from Bullwhacker Creek to Fort Peck Reservoir (49 miles, waterbody ID MT40E001_010) in Blaine, Fergus and Phillips Counties is listed by MDEQ as water quality impaired with only partial support of aquatic life and warm water fishery uses, and non-support of drinking water uses. Probable causes of impairment are listed as alteration in stream-side or littoral vegetative covers, and arsenic and copper. Probable sources of impairment are listed as agriculture, grazing in riparian or shoreline zones, and impacts from abandoned mine lands (inactive). A Total Maximum Daily Load (TMDL) and Water Quality Plan must be prepared for the Missouri River by the MDEQ to identify pollutant load reductions necessary to restore full support of beneficial uses (Missouri River TMDL Planning Area).

   The lower Musselshell River in Garfield and Petroleum Counties from Flatwillow Creek to Fort Peck Reservoir (75.9 miles, MT40C003_010) is listed as water quality impaired with only partial support of aquatic life and warm water fishery uses; with probable causes listed as alteration in stream-side or littoral vegetative covers and low flow alterations. Probable

sources of impairment are listed as agriculture, grazing in riparian or shoreline zones, streambank modifications/destabilization, flow alterations from water diversions, impacts from hydrostructure flow regulation/modification, and impacts from resort areas (winter and non-winter resorts). A Total Maximum Daily Load (TMDL) is not required since water quality impairments are due to habitat alteration and low flow rather than pollutants.

Rock Creek in Phillips County (39.2 miles, headwaters to mouth, MT40E002_090) is listed as water quality impaired with only partial support of aquatic life, primary contact recreation, and warm water fishery uses; with probable causes listed as alteration in stream-side or littoral vegetative covers and fecal coliform from grazing in riparian or shoreline zones, and caused by metals (cadmium, copper, lead, mercury, selenium and zinc) and low pH due to impacts from abandoned mine lands (inactive). A Total Maximum Daily Load (TMDL) and Water Quality Plan must be prepared by MDEQ for Rock Creek to identify pollutant load reductions necessary to restore full support of beneficial uses (Rock Creek is in the Landusky TMDL Planning Area).

Fort Peck Reservoir in Garfield, McCone, Petroleum, Phillips, and Valley Counties (245,000 acres, MT40E004_010) is water quality impaired with non-support of drinking water uses and only partial support of primary contact recreation uses, with probable causes listed as lead and mercury due to atmospheric deposition – toxics historic bottom deposits (not sediment) impacts from abandoned mine lands (inactive), and aquatic plants due to agriculture. A Total Maximum Daily Load (TMDL) and Water Quality Plan must be prepared for Fort Peck Reservoir by the MDEQ to restore full support of beneficial uses (Missouri River TMDL Planning Area).

Nelson Creek in McCone County from headwaters to mouth (Big Dry Creek arm of Fort Peck Reservoir, 36.4 miles, MT40E003_020) is water quality impaired with only partial support of aquatic life and warm water fishery uses, with probable causes listed as alteration in stream-side or littoral vegetative covers and nitrate and sulfate from grazing in riparian or shoreline zones; and cadmium and copper from unknown sources. A Total Maximum Daily Load (TMDL) and Water Quality Plan must be prepared for Nelson Creek to restore full support of beneficial uses (Nelson Creek is in the Redwater TMDL Planning Area).

This MDEQ Clean Water Act website information on the causes and sources of water quality impairments indicate that some of the impairments to surface waters within the refuge result from alteration in stream-side or littoral vegetative covers, grazing in riparian or shoreline zones, and/or from metals transport from abandoned or inactive mine lands. The DEIS does not adequately discuss or disclose the extent to which these conditions occur on refuge lands vs. other land ownerships in the watersheds of these

surface waters; and the extent to which the long-term conservation plan will help address these water quality impairments.

We recognize that the Service's proposed action that would use fencing and prescriptive livestock grazing and other methods such as livestock exclosures would likely promote restoration of riparian areas and streamside vegetation, and that such actions should improve water quality and help address water quality impairments. However, we believe the FEIS should include a more comprehensive discussion of water quality impairments on surface waters within the refuge, and should better demonstrate that the Service's final preferred alternative will include adequate actions to address water quality impairments and be consistent with MDEQ's preparation of Total Maximum Daily Loads (TMDLs) to improve water quality and restore full support to beneficial uses of waters within the refuge (see http://deq.mt.gov/wqinfo/TMDL/default.mcpx).

We recommend that the Service coordinate with MDEQ TMDL program staff to assure consistency of proposed Plan/EIS actions with TMDLs and Water Quality Restoration Plans that may be prepared by MDEQ for impaired waters within the refuge (contact MDEQ staff such as Mr. Mark Kelley at 406-444-3508, Mr. Dean Yashan at 406-444-5317, and/or Mr. Robert Ray at 406-444-5319).

If any of sources of heavy metals from abandoned or inactive mine lands are located within the refuge, the Plan should incorporate actions to reclaim those abandoned mine lands to stop such metal transport to surface waters (i.e., MDEQ's 303(d) listing data shows water quality impairments in Rock Creek, Fort Peck Reservoir or Nelson Creek due at least partially to metals transport from abandoned mine areas).

Air Quality and Prescribed Fire

5. The UL Bend Wilderness is classified as a Class I air quality area receiving special protection against air pollution under the Clean Air Act (page 160). The DEIS states that implementation of any alternative would have negligible long-term effects on the Class I airshed in UL Bend Wilderness (page 260). However, if there are existing or potential visibility impact to Class I lands a visibility impact analysis should be provided. The EPA's visibility regulations (45 FR 80084, December 2, 1980) protect mandatory Class I Federal areas from manmade impairment that is "reasonably attributable" to a single emission source or small group of sources. Federal land managers have an "affirmative responsibility to protect air quality related values (including visibility)" in Class I areas. This program is intended to address visibility impairments in mandatory Class I areas such as the UL Bend Wilderness. The State of Montana has returned the clean air visibility program to EPA (see http://deq.mt.gov/AirQuality/Visibility.mcpx). Ms. Laurel Dygkowski of EPA is now the contact for information on regional haze and visibility issues in Montana, and she can be reached in Denver at 303-312-6144.

   The Plan calls for increased use of prescribed fire, which could potentially have impacts on the UL Bend Wilderness Class I air quality area. EPA supports judicious use of prescribed fire to allow fire to play its natural role and influence vegetative composition

and structure, and reduce fuels that could result in larger wildfires, as long as the prescribed fire is consistent with public health and environmental quality considerations. Smoke from fire contains air pollutants, including tiny particulates (PM10 and PM2.5) which can cause health problems, especially for people suffering from respiratory illnesses such as asthma or emphysema, or heart problems. PM10 and PM2.5 particles are both of concern, although PM2.5 is greater concern because it can penetrate into the lungs whereas larger particles (included in the coarse fraction of PM10) deposit in the upper respiratory tract. Particulate concentrations that exceed health standards have been measured downwind from prescribed burns. EPA gives special consideration to smoke and high particulates attributed to fires managed for resource benefits if the State has certified to EPA that it is implementing a Smoke Management Program with the basic elements.

We are pleased that the DEIS states that all prescribed fires would be initiated in accordance with an approved fire plan, and that prescribed fire would only occur when convection is good to excellent so heat and smoke quickly rise or with winds that preclude smoke from critical areas (page 260). However, we did not see clear disclosure that prescribed fire will be carried out in conformance with the Montana Smoke Management Plan.

We recommend that the EIS discuss the *Interim Air Quality Policy on Wildland and Prescribed Fires*, and disclose how the Federal land manager is participating in a certified Smoke Management Program (e.g., Montana/Idaho State Airshed Group), and describe how prescribed burns will be in line with the State certified Smoke Management Program. A copy of the *Interim Air Quality Policy* can be found at: http://www.epa.gov/ttn/oarpg/t1/memoranda/firefnl.pdf . The *Interim Air Quality Policy* was prepared in an effort to integrate the public policy goals of allowing fire to function in its natural role in maintaining healthy ecosystems and protecting public health and welfare by mitigating the impacts of air pollutant emissions on air quality and visibility. It is Federal policy which reconciles the competing needs to conduct prescribed fires while at the same time to maintain clean air to protect public health. It is interim only in that it does not yet address agricultural burning nor visibility/regional haze. It is not interim with regard to how States, Tribes, and Federal land managers should address smoke from prescribed fires. It may be of interest to the public to display the website for the Montana/Idaho State Airshed Group, http://www.smokemu.org/ .

Smoke management programs depend on favorable meteorological conditions to disperse smoke. While we believe it is likely that good smoke dispersal conditions exist on the refuge, we recommend that the FEIS include discussion of meteorological conditions within the refuge in regard to dispersal of air pollutants released during prescribed fire. Despite best efforts to predict favorable conditions the weather can change causing smoke not to disperse as intended. Therefore, the FEIS should acknowledge that there may be unintentional ground-level impacts from smoke and never presume to the public that there will be no air quality impacts. The public will naturally want to know what the Service will do in the event smoke does not properly disperse. The discussion of the contingency measure element of the smoke management program should address this

concern.

Proposed Wilderness

6. Wilderness and proposed wilderness areas are often the more pristine or less disturbed lands that provide the key refugia areas and population strongholds for wildlife, particularly sensitive, threatened and endangered species. We believe it is particularly important that such areas be protected and maintained, and that wildlife habitat characteristics, including wildlife security, wildlife movement corridors, and wildlife connectivity be protected and enhanced. The Alternative D proposal to eliminate three proposed wilderness units for a reduction of 26,744 acres in the East Beauchamp Creek, West Beauchamp Creek, and East Hell Creek units does not appear consistent with the primary purpose of the refuge to conserve and protect wildlife. While Alternative D would also include expanding six proposed wilderness units by 18,559 acres, the overall proposal would amount to a reduction in proposed wilderness by 8,185 acres. We believe wilderness areas should be expanded rather than decreased to better promote wildlife conservation within the refuge complex.

   EPA recommends that the Service reconsider their proposal to eliminate the East Beauchamp Creek, West Beauchamp Creek, and East Hell Creek proposed wilderness units with Alternative D. Retention of these proposed wilderness units and/or portions of them would provide a higher level of wildlife conservation and protection within the refuge and would be more consistent with the refuge purpose. It would appear to us that Alternative B, Wildlife Population Emphasis, that would increase acreage of proposed wilderness by 25,037 acres in six existing units would better meet the primary refuge purposes, although modifications to Alternative B may also be need to be considered to better balance public use with wildlife needs. We would very much be opposed to the Alternative C proposal that would eliminate 35,881 acres of proposed wilderness in four units.

7. We are pleased that roads in proposed wilderness units would remain closed except for roads that provide access to private lands within the refuge (page 34). As noted in our earlier discussion regarding roads and motorized uses, we have concerns regarding adverse effects of roads and motorized uses. Accordingly we have particular support for removal of roads within proposed wilderness areas, and restrictions on motorized uses in proposed wilderness areas to protect wildlife and the quality of non-motorized recreational uses in these areas. It is critical that such primitive areas with important wildlife habitat characteristics, including core habitat and wildlife security areas, wildlife movement corridors and wildlife connectivity be protected, maintained and enhanced to meet the wildlife conservation and protection purposes of the refuge.

Invasive Plants/Noxious Weeds

8. Among the greatest threats to biodiversity is the spread of noxious weeds and exotic (non-indigenous) plants. Many noxious weeds can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife.

Noxious weeds tend to gain a foothold where there is disturbance in the ecosystem, such as road building, fire, or grazing, activities.

EPA fully supports control of noxious weed infestations, particularly integrated weed management (e.g., effective mix of cultural, education and prevention, biological, mechanical, chemical management, etc.). The DEIS identifies noxious weeds that occur at the refuge (page 199), and includes objectives to address invasive plants and weeds (pages 82-84). We support actions for prevention, early detection of invasion, and control of weeds at the refuge. We also encourage tracking of weed infestations, control actions, and effectiveness of control actions in a central weed database.

While we support use of weed control chemicals where needed, we encourage prioritization of management techniques that focus on non-chemical treatments first, with reliance on chemicals being the last resort, since weed control chemicals can be toxic and have the potential to be transported to surface or ground water following application. Herbicide drift into streams and wetlands could adversely affect aquatic life and wetland functions such as food chain support and habitat for wetland species. Weed prevention is the most cost-effective way to manage and control weeds by avoiding new infestations and spread of weeds, and thus, avoiding the need for subsequent weed treatments.

Water contamination concerns of herbicide usage be fully evaluated and mitigated. EPA recommends that no herbicide spraying occur in streams and wetlands or other aquatic areas (seeps, springs, etc.). Herbicides should be applied at the lowest rate effective in meeting weed control objectives and according to guidelines for protecting public health and the environment. The Montana Water Quality Standards include a general narrative standard requiring surface waters "*to be free from substances that create concentrations which are toxic or harmful to aquatic life.*"

We suggest that mitigation measures be used to reduce potential water quality and fisheries effects during herbicide spraying such as: 1) applicators apply herbicides according to the label; 2) streams and wetlands in any area to be sprayed be identified and flagged on the ground to assure that herbicide applicators are aware of and can avoid spraying in or near streams and wetlands (we recommend use of 50 feet no spray buffer zones adjacent to streams and wetlands); 3) applicators should take precautions during spraying (e.g., applying herbicide only after careful review of weather reports to ensure minimal likelihood of rainfall within 24 hours of spraying; 4) use treatment methods that target individual noxious weed plants in riparian and wetland areas (depending on the targeted weed species, manual control or hand pulling may be one of the best options for weed control within riparian/wetland areas or close to water); and 5) applicators should be certified and fully trained and equipped with appropriate personal protective equipment. Please also note that there may be additional pesticide use limitations that set forth geographically specific requirements for the protection of endangered or threatened species and their designated critical habitat. This information can be found at http://www.epa.gov/espp/bulletins.htm .

For your information, the website for EPA information regarding pesticides and herbicides is http://www.epa.gov/pesticides/about/index.htm . The National Pesticide Telecommunication Network (NPTN) website at http://www.oshweb.com/owd/owd01.nsf/s/420-01 which operates under a cooperative agreement with EPA and Oregon State University and has a wealth of information on toxicity, mobility, environmental fate on pesticides that may be helpful (phone number 800-858-7378).

9. Roads and motorized vehicles -cars, trucks, ATVs, motorcycles, and even snowmobiles- are often a major source of weed seed dispersion. Weed seeds are often caught on the vehicle undercarriage in mud and released on public lands. A single vehicle driven several feet through a knapweed site can acquire up to 2,000 seeds, 200 of which may still be attached after 10 miles of driving (Montana Knapweeds: Identification, Biology and Management, MSU Extension Service). Off-road vehicles are designed to travel off-trail, disturbing soil, creating weed seedbeds, and dispersing seeds widely. Weed seed dispersal from non-motorized travel is of lesser concern because of fewer places to collect/transport seed, and the dispersal rate and distances along trails with non-motorized travel are less.

   An effective noxious weed control program should include restrictions on motorized uses, particularly off-road uses. Restrictions on motorized uses may also be needed after burning and harvest activities until native vegetation is reestablished in the disturbed areas to reduce potential for weed infestation of the disturbed sites. It is particularly important to avoid motorized travel in wilderness areas since they are often reservoirs of native plants, and limitations on motorized travel in such areas can protect such areas from weed invasion and avoid the subsequent need to treat weeds. The Service should manage motorized uses on the refuge after weed treatments to reduce potential for reinfestation of treated areas by noxious weeds. Measures for preventing spread of weeds from source areas to uninfested areas include:

   - Ensure that equipment tracks and tires are cleaned prior to transportation to an uninfested site.
   - Focus control efforts at trail heads and transportation corridors to prevent tracking of seed into uninfested areas.
   - Attempt to control the spread from one watershed to another to reduce water as a transport vector.
   - If a localized infestation exists and control is not a viable option, consider rerouting trails or roads around the infestation to reduce available vectors for spread.
   - Establish an education program for industrial and recreational users and encourage voluntary assistance in weed prevention and control activities.
   - Reseed disturbed sites as soon as possible following disturbance.

   Revegetation (reseeding with native grass mix) to seed any site within the control area where the vegetation density is low enough to allow reinfestation or introduction of other noxious weeds, or erosion is recommended. The goal of the seeding program should be

to establish the sustainability of the area. Where no native, rapid cover seed source exists, we recommend using a grass mixture that does not include aggressive grasses such as smooth brome, thereby allowing native species to eventually prevail. Mr. Phil Johnson, Botanist, Montana Dept. of Transportation, in Helena at 444-7657, may be able to provide guidance on revegetation with native grasses.

The Federal Noxious Weed Act of 1974 prohibits the interstate transport of noxious weeds or weed parts, such as seed. Hay can be a source of noxious weed seed. Hay/straw is used as mulch to slow erosion and encourage seed germination during road obliteration. It is important that certified weed free hay in permits or projects.

Livestock Grazing

10. Grazing can adversely impact streams and riparian areas by changing, reducing, or eliminating riparian vegetation leading to stream channel widening and aggradation or lowering of the water table, destabilized stream banks, loss of aquatic habitat, and adverse effects on fisheries and water quality (sediment, nutrients, fecal coliform, temperature effects, etc.). The Service should manage grazing activities within the refuge to ensure that water quality, riparian areas, fisheries and wildlife habitat are protected and restored. We support proposed use of fencing on the refuge to exclude livestock from riparian habitats with use of wildlife friendly fences (page 72). We also support improvements in grazing practices on the refuge with use of increased monitoring and adaptive management, revegetation of disturbed streambanks, off-stream watering, salting, herding, and other grazing management practices. We suggest a goal of having at least 90 percent of refuge riparian areas in proper functioning condition within 15 years (see ftp://ftp-fc.sc.egov.usda.gov/MT/www/technical/water/pfc12.pdf for information on proper functioning condition assessments).

Climate Change

11. We appreciate the inclusion of information and discussion regarding climate change considerations in the Plan and DEIS (pages 84-86, 257-258). We support the Plan objectives and strategies for climate change that include reducing the carbon footprint of refuge operations to achieve carbon neutrality by 2020, monitoring climate change effects on refuge wildlife and plants, and development of a research project to identify fire, sentinel plant, pollinators, and animal behavior changes or use due to climate change. We also draw your attention to the Climate Change Wildlife Action Plan Guidance document developed by the Association of Fish and Wildlife Agencies. http://www.fishwildlife.org/pdfs/ClimateChangeGuidance%20Document_Final_December2009.pdf .

EPA Region 8 generally suggests a four step approach to address climate change in NEPA documents involving discussion of: 1) links between greenhouse gases (GHGs) and climate change, and the potential impacts of climate change, (see http://www.ipcc.ch/, http://www.epa.gov/climatechange/); 2) capacity of the proposed action to adapt to projected climate change effects; 3) disclosure of annual cumulative

emissions of GHGs attributable to the project; and 4) mitigation of project related emissions of GHGs (pursuant to 40 CFR Sections 1502.14(f), 1502.16(h), 1508.14).

Monitoring and Adaptive Management

12. We are pleased a monitoring and adaptive management process will be incorporated into the Plan (page 139). EPA fully supports monitoring and adaptive management programs whereby ecological and environmental effects of land management activities are determined through monitoring. It is through the iterative process of setting out goals and objectives, planning and carrying out activities, monitoring impacts of activities, and feeding back monitoring results to managers so they can make needed adjustments, that adaptive management works. Monitoring programs allow identification of actual impacts so that adverse impacts may be appropriately mitigated.

    The success of the Plan in terms of achieving biological goals and objectives depends to a great extent upon the effectiveness of the monitoring and adaptive management program. It will be important that the Service devotes adequate resources and budgets for conduct of needed monitoring to determine actual effects of refuge management. We also recommend that refuge monitoring reports and information be available for review by the public and interested agencies.

13. Little detail was provided in the Plan and DEIS regarding specific details of proposed monitoring. Further explanations and more detailed and specific information regarding the Service's adaptive management and monitoring program should be provided. Without more detailed monitoring information and public access to monitoring reports we do not believe the EIS will include adequate information to fully assess effects of the management actions.

Tribal Coordination

14. Executive Order 13175, "Consultation and Coordination With Indian Tribal Governments," was issued on November 6, 2000 to assure meaningful consultation and collaboration with tribal officials in the development of Federal policies with tribal implications, and to strengthen U.S. government-to-government relationships with Indian tribes. As you know, the Rocky Boy's Reservation, Fort Belknap Reservation, and Fort Peck Reservation are located northeast, north, and northwest of the refuge, respectively. Federal agencies are directed to respect Indian tribal self-government and sovereignty, honor tribal treaty & other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the Federal government and Indian Tribal governments, and have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.

    The unique U.S. relationship with Tribal governments requires that Federal agencies assess and disclose the impacts of their actions on Tribal Trust resources. Trust resources are located both within the boundaries of reservations and outside the reservation in Usual and Accustomed fishing and hunting areas. The DEIS states that 16 traditional

cultural properties are located on refuge land (page 238), however, we did not see clear disclosure of potential environmental impacts, either negative and positive, on Tribal Trust resources. We recommend that the FEIS include clearer disclosure of the potential environmental impacts of the Plan on tribal trust resources, both negative and positive, and identify consultation activities the Service conducted with the Tribal governments in the area.

Environmental Justice

15. E.O. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires that Federal agencies make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority populations and low-income populations. Environmental justice encompasses a broad range of impacts covered by NEPA, including impacts on the natural or physical environment and interrelated social, cultural, and economic impacts.

    We did not see much discussion of environmental justice considerations in the DEIS, including information on minority populations and low-income populations in the planning area. Guidance on addressing Executive Order 12898 in NEPA documents is available at http://www.epa.gov/compliance/resources/policies/nepa/enviro_justice_309review.pdf .

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.